IN THE CLAIMS

1. (currently amended) A method of ultrasound inspection, said method comprising:

providing a composite first aircraft engine part;

introducing ultrasound to the first aircraft engine part;

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receiving at least one reflection ~~reflections~~ of the ultrasound introduced to the first aircraft engine part; and

predicting a residual strength of the first aircraft engine part using an amplitude of the received reflection ~~reflections~~.

2. (currently amended) A method according to Claim 1 wherein predicting a residual strength comprises correlating an amplitude of at least one received reflection of at least one second aircraft engine part with at least one non-ultrasound test of the second aircraft engine part.

3. (currently amended) A method according to Claim 2 wherein predicting a residual strength comprises correlating the amplitude of the received reflection ~~reflections~~ of at least one second aircraft engine part with at least one destructive test of the second aircraft engine part.

4. (currently amended) A method according to Claim 3 wherein predicting a residual strength comprises correlating the amplitude of the received reflection ~~reflections~~ of at least one second aircraft engine part with a core sample test of the second aircraft engine part.

5. (currently amended) A method according to Claim 1 wherein predicting a residual strength comprises correlating ~~an~~ a plurality of amplitudes of ~~a~~ received reflections of a plurality of second aircraft engine parts with at least one non-ultrasound test of each of the second aircraft engine parts.

6. (currently amended) A method according to Claim 5 wherein correlating a plurality of amplitudes comprises generating a linear least squares fit between the amplitudes and a plurality of results from the non-ultrasound tests.

7. (currently amended) A method according to Claim 1 wherein predicting a residual strength comprises predicting a residual shear strength of the first aircraft engine part using an amplitude of the received reflection ~~reflections~~.

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8. (currently amended) A method according to Claim 7 wherein predicting a residual shear strength comprises correlating ~~an~~ a plurality of amplitudes of ~~a~~ received reflections of a plurality of second aircraft engine parts with at least one non-ultrasound shear strength test of each of the aircraft engine second parts.

9. (original) A method according to Claim 8 wherein correlating an amplitude comprises generating a linear least squares fit between the amplitudes and a plurality of results from the non-ultrasound shear strength tests.

10. (currently amended) A ultrasound inspection system comprising:

a pulse echo transducer; and

a processor operationally coupled to said transducer, said processor configured to predict a residual strength of a first aircraft engine part using an amplitude of a received ultrasound reflection.

11. (currently amended) A system according to Claim 10 further comprising a memory containing a correlation of an amplitude of at least one received reflection of at least one second aircraft engine part with at least one non-ultrasound test of the second aircraft engine part, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound reflection and the correlation.

12. (currently amended) A system according to Claim 10 further comprising a memory containing a correlation of an amplitude of at least one received reflection of at

least one second aircraft engine part with at least one destructive test of the second aircraft engine part, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound reflection and the correlation.

13. (currently amended) A system according to Claim 10 further comprising a memory containing a correlation of an amplitude of at least one received reflection of at least one second aircraft engine part with a core sample test of the second aircraft engine part, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound ~~reflections~~ reflection and the correlation.

b2 cont'd

14. (currently amended) A system according to Claim 10 further comprising a memory containing a correlation of ~~an~~ a plurality of amplitudes of received reflections of a plurality of second aircraft engine parts with at least one non-ultrasound test of each of the second aircraft engine parts, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound ~~reflections~~ reflection and the correlation.

15. (currently amended) A system according to Claim 14 wherein said memory further contains a linear ~~lest~~ least squares fit between the amplitudes and a plurality of results from the non-ultrasound tests.

16. (currently amended) A system according to Claim 10 wherein said processor further configured to predict a residual shear strength of the first aircraft engine part.

17. (currently amended) A system according to Claim 16 further comprising a memory containing a correlation of ~~an~~ a plurality of amplitudes of ~~a~~ received reflections of a plurality of second aircraft engine parts with at least one non-ultrasound test of each of the second aircraft engine parts, said processor further configured to predict a residual shear strength of the first aircraft engine part using an amplitude of a received ultrasound ~~reflections~~ reflection and the correlation.

18. (currently amended) A system according to Claim 17 wherein said memory further contains a linear ~~lest~~ least squares fit between the amplitudes and a plurality of results from the non-ultrasound tests.

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19. (currently amended) An ultrasound inspection device comprising:

means for non-destructively testing a first aircraft engine part; and

means for predicting a residual strength of the first aircraft engine part using a result from a non-destructive test of the first aircraft engine part with a plurality of destructive and non-destructive tests on second aircraft engine parts substantially similar to the first part.

20. (canceled)